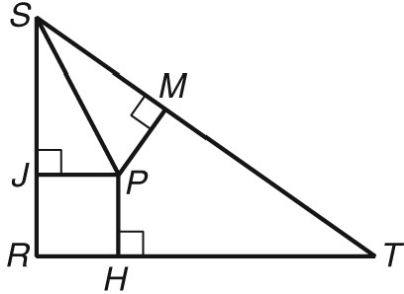




\_\_\_\_\_ 4) **Given:**

$PR = 8\sqrt{2}$ ,  $\overline{PM} \perp \overline{ST}$ ,  $PJ \perp \overline{SR}$ ,  $PH \perp \overline{RT}$ ,  
 $\overline{SP}$  bisects  $\angle RST$ , and  $m\angle SRP = m\angle TRP = 45^\circ$ .  
 What is  $PM$ ?



- |                |                |
|----------------|----------------|
| a) $\sqrt{2}$  | c) 8           |
| b) $4\sqrt{2}$ | d) $8\sqrt{2}$ |

\_\_\_\_\_ 5) In  $\triangle QRS$ ,  $X$ ,  $Y$ , and  $Z$  are the midpoints of  $\overline{QR}$ ,  $\overline{RS}$ , and  $\overline{QS}$ , respectively.  $m\angle Q = a^\circ$  and  $m\angle R = b^\circ$ .  
 What is  $m\angle YXZ$ ?

- |              |                          |
|--------------|--------------------------|
| a) $a^\circ$ | c) $(a + b)^\circ$       |
| b) $b^\circ$ | d) $(180 - a - b)^\circ$ |

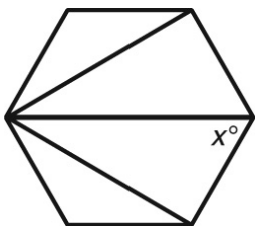
\_\_\_\_\_ 6) The perimeter of a regular polygon is 36 centimeters. The length of one side is 4.5 centimeters. Which identifies the polygon?

- |            |             |
|------------|-------------|
| a) decagon | c) octagon  |
| b) hexagon | d) pentagon |

Name: \_\_\_\_\_

ID: A

- \_\_\_\_\_ 7) The figure is a regular polygon. What is the value of  $x$ ?



- a) 30
- b) 60
- c) 90
- d) 129

- \_\_\_\_\_ 8) The exterior angles of a triangle measure  $5x^\circ$ ,  $(x+61)^\circ$ , and  $(3x+38)^\circ$ . Which is the best classification of the triangle?

- a) acute
- b) equiangular
- c) obtuse
- d) right

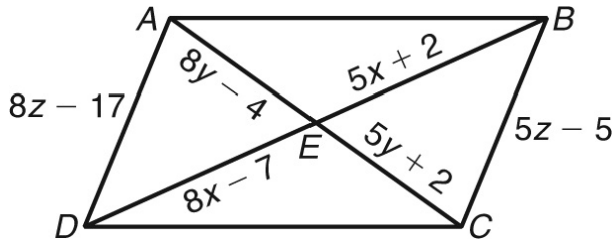
- \_\_\_\_\_ 9) Three vertices of parallelogram  $ABCD$  are  $A(-2, -2)$ ,  $B(2, 1)$ , and  $C(0, 7)$ . What are the coordinates of vertex  $D$ ?

- a)  $(-4, 4)$
- b)  $(4, 10)$
- c)  $(0, -8)$
- d) Not here

Name: \_\_\_\_\_

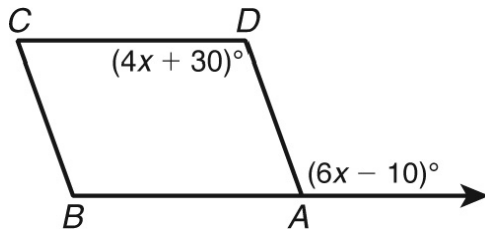
ID: A

\_\_\_\_\_ 10)  $ABCD$  is a parallelogram. What is the perimeter of  $\triangle AED$ ?



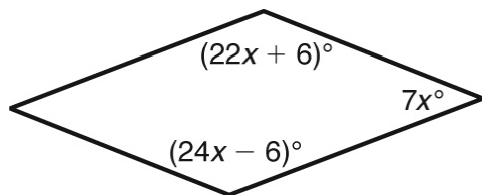
- a) 5.5
- b) 29
- c) 19
- d) 44

\_\_\_\_\_ 11) In  $\square ABCD$ , what is  $m\angle DAB$ ?



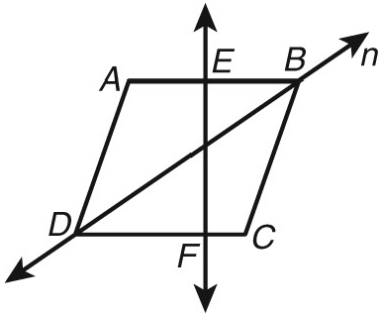
- a)  $7^\circ$
- b)  $70^\circ$
- c)  $110^\circ$
- d) Not here

\_\_\_\_\_ 12) For what value of  $x$  will the quadrilateral be a parallelogram?



- a) 4
- b) 5
- c) 6
- d) 7

\_\_\_\_\_ 13) If  $\overline{AD} \parallel \overline{BC}$ , which CANNOT be used to justify the statement that  $ABCD$  is a parallelogram?

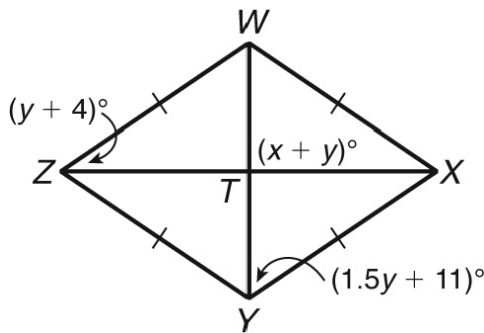


- |  |  |
|--|--|
| a) $\overleftrightarrow{EF} \perp \overline{AB}$ and $\overleftrightarrow{EF} \perp \overline{CD}$ | c) $\angle ABD \cong \angle CDB$       |
| b) $m\angle BEF + m\angle EFC = 180^\circ$   | d) $\overline{BA} \cong \overline{DC}$ |

\_\_\_\_\_ 14) The vertices of a quadrilateral are formed by the intersection of the lines for the equations  $y = x$ ,  $y = -x$ ,  $y = 3$ , and  $y = -3$ . Which term best describes the quadrilateral?

- |                  |            |
|------------------|------------|
| a) parallelogram | c) rhombus |
| b) rectangle     | d) square  |

\_\_\_\_\_ 15) In  $\square WXYZ$ , what is the value of  $x$ ?

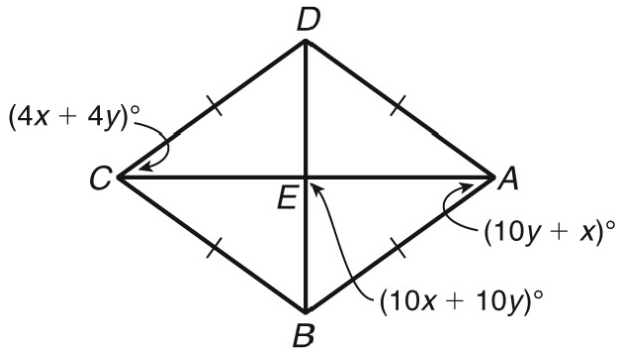


- |       |             |
|-------|-------------|
| a) 30 | c) 60       |
| b) 45 | d) Not here |

Name: \_\_\_\_\_

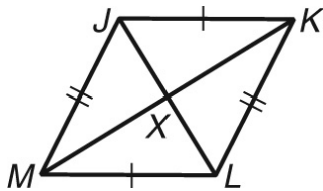
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\_\_\_\_ 16) What is the value of  $y$ ?



- |      |             |
|------|-------------|
| a) 2 | c) 6        |
| b) 3 | d) Not here |

\_\_\_\_ 17) Given  $\square JKLM$ , which is valid?



- |  |   |
|--|---|
| a) If $\angle JXK \cong \angle KXL$ , then $JKLM$ is a rhombus.      | c) If $\triangle JXM \cong \triangle L XK$ , then $JKLM$ is a square. |
| b) If $\triangle JXM \cong \triangle JXK$ , then $JKLM$ is a square/ | d) If $\angle MJK \cong \angle KXL$ , then $JKLM$ is a rectangle.     |

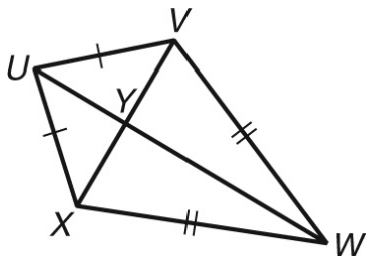
\_\_\_\_ 18) Which points are the vertices of a rectangle that is NOT a square?

- |  |   |
|--|---|
| a) $(-10, 10), (0, 0), (14, 2), (4, 12)$ | c) $(2, 2), (6, -2), (2, -6), (-2, -2)$ |
| b) $(-4, 1), (-1, 4), (5, -2), (2, -5)$  | d) Not here                             |

Name: \_\_\_\_\_

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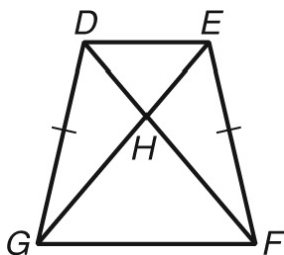
\_\_\_\_ 19) Given kite  $UVWX$ , which provides insufficient information to determine the measures of all the angles?



- a)  $m\angle XUV$  and  $m\angle W VX$
- b)  $m\angle XUY$  and  $m\angle YWV$

- c)  $m\angle XWY$  and  $m\angle XUW$
- d)  $m\angle UXW$  and  $m\angle UVW$

\_\_\_\_ 20) In isosceles trapezoid  $DEFG$ ,  $DF = x^2 - 3x$  and  $EG = -5x + 15$ . What is the value of  $x$ ?



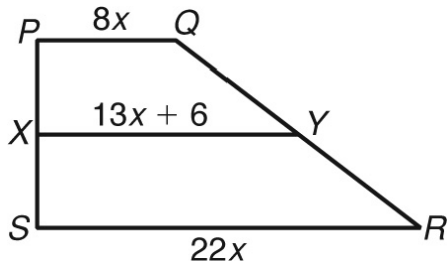
- a)  $-5$
- b)  $-3$

- c)  $3$
- d)  $5$

Name: \_\_\_\_\_

ID: A

\_\_\_\_\_ 21) In trapezoid  $PQRS$ , if  $\overline{YX}$  is the midsegment, what is the value of  $x$ ?



- |      |       |
|------|-------|
| a) 3 | c) 12 |
| b) 8 | d) 24 |

### Matching

*Match each vocabulary term with its definition.*

- a) kite
- b) trapezoid
- c) rectangle
- d) polygon
- e) square
- f) rhombus
- g) parallelogram

\_\_\_\_\_ 1) a quadrilateral with four right angles

\_\_\_\_\_ 2) a quadrilateral with four congruent sides and four right angles

\_\_\_\_\_ 3) a quadrilateral with four congruent sides

\_\_\_\_\_ 4) a quadrilateral with two pairs of parallel sides

**Name:** \_\_\_\_\_

**ID: A**

\_\_\_\_\_ 5) a quadrilateral with exactly two pairs of congruent consecutive sides

## Geometry Chapter 6 Practice Test

### Answer Section

#### MULTIPLE CHOICE

- |   |        |   |  |
|---|--------|---|--|
| 1) ANS: B<br>MSC: DOK 2                                   | PTS: 1 | DIF: 2                                      | TOP: Cumulative Test, Chapter 6                |
| 2) ANS: B<br>MSC: DOK 2                                   | PTS: 1 | DIF: 2                                      | TOP: Cumulative Test, Chapter 6                |
| 3) ANS: C<br>MSC: DOK 2                                   | PTS: 1 | DIF: 2                                      | TOP: Cumulative Test, Chapter 6                |
| 4) ANS: C<br>TOP: Cumulative Test, Chapter 6              | PTS: 1 | DIF: 2                                      | NAT: NT.CCSS.MTH.10.9-12.G.SRT.5<br>MSC: DOK 2 |
| 5) ANS: D<br>TOP: Cumulative Test, Chapter 6              | PTS: 1 | DIF: 2                                      | NAT: NT.CCSS.MTH.10.9-12.G.SRT.5<br>MSC: DOK 2 |
| 6) ANS: C<br>MSC: DOK 2                                   | PTS: 1 | TOP: Chapter 6 Multiple Choice Test, Form C |  |
| 7) ANS: B<br>TOP: Chapter 6 Multiple Choice Test, Form C  | PTS: 1 | DIF: 2                                      | MSC: DOK 2                                     |
| 8) ANS: D<br>TOP: Chapter 6 Multiple Choice Test, Form C  | PTS: 1 | DIF: 2                                      | MSC: DOK 2                                     |
| 9) ANS: A<br>TOP: Chapter 6 Multiple Choice Test, Form C  | PTS: 1 | DIF: 2                                      | MSC: DOK 2                                     |
| 10) ANS: D<br>TOP: Chapter 6 Multiple Choice Test, Form C | PTS: 1 | DIF: 2                                      | MSC: DOK 2                                     |
| 11) ANS: B<br>TOP: Chapter 6 Multiple Choice Test, Form C | PTS: 1 | DIF: 2                                      | MSC: DOK 2                                     |
| 12) ANS: C<br>TOP: Chapter 6 Multiple Choice Test, Form C | PTS: 1 | DIF: 2                                      | MSC: DOK 2                                     |
| 13) ANS: D<br>TOP: Chapter 6 Multiple Choice Test, Form C | PTS: 1 | DIF: 2                                      | MSC: DOK 2                                     |
| 14) ANS: D<br>TOP: Chapter 6 Multiple Choice Test, Form C | PTS: 1 | DIF: 2                                      | MSC: DOK 2                                     |
| 15) ANS: C<br>TOP: Chapter 6 Multiple Choice Test, Form C | PTS: 1 | DIF: 2                                      | MSC: DOK 2                                     |
| 16) ANS: B<br>TOP: Chapter 6 Multiple Choice Test, Form C | PTS: 1 | DIF: 2                                      | MSC: DOK 2                                     |
| 17) ANS: A<br>TOP: Chapter 6 Multiple Choice Test, Form C | PTS: 1 | DIF: 2                                      | MSC: DOK 2                                     |
| 18) ANS: B<br>TOP: Chapter 6 Multiple Choice Test, Form C | PTS: 1 | DIF: 2                                      | MSC: DOK 2                                     |
| 19) ANS: D<br>TOP: Chapter 6 Multiple Choice Test, Form C | PTS: 1 | DIF: 2                                      | NAT: NT.CCSS.MTH.10.9-12.G.SRT.5<br>MSC: DOK 2 |
| 20) ANS: A<br>TOP: Chapter 6 Multiple Choice Test, Form C | PTS: 1 | DIF: 2                                      | MSC: DOK 2                                     |

21) ANS: A                      PTS: 1                      DIF: 2  
 TOP: Chapter 6 Multiple Choice Test, Form C

MSC: DOK 2

### MATCHING

- 1) ANS: C                      PTS: 1                      DIF: Basic  
 REF: 1b68b02e-4683-11df-9c7d-001185f0d2ea  
 TOP: 6-4 Properties of Special Parallelograms
- 2) ANS: E                      PTS: 1                      DIF: Basic  
 REF: 1b6aeb7a-4683-11df-9c7d-001185f0d2ea  
 TOP: 6-4 Properties of Special Parallelograms
- 3) ANS: F                      PTS: 1                      DIF: Basic  
 REF: 1b6d4dd6-4683-11df-9c7d-001185f0d2ea  
 TOP: 6-4 Properties of Special Parallelograms
- 4) ANS: G                      PTS: 1                      DIF: Basic  
 REF: 1b6d74e6-4683-11df-9c7d-001185f0d2ea  
 TOP: 6-2 Properties of Parallelograms    MSC: DOK 1
- 5) ANS: A                      PTS: 1                      DIF: Basic  
 REF: 1b6fb032-4683-11df-9c7d-001185f0d2ea  
 TOP: 6-6 Properties of Kites and Trapezoids

LOC: MTH.C.11.03.03.03.001

MSC: DOK 1

LOC: MTH.C.11.03.03.06.001

MSC: DOK 1

LOC: MTH.C.11.03.03.02.001

MSC: DOK 1

LOC: MTH.C.11.03.03.01.001

LOC: MTH.C.11.03.03.05.001

MSC: DOK 1